

**2006 Annual Drinking Water Quality Report**  
City of Jackson Surface Water System  
Public Water Supply Identification Number MS0250008  
May 27, 2007

We're pleased to present to you the 2006 Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are the Ross Barnett Reservoir and the Pearl River (surface water).

The Mississippi Department of Environmental Quality has completed their source water assessment report which is available for review at the Water / Sewer Utilities Division Office, 200 S. President Street, Room 405, between the hours of 8:00 AM and 5:00 PM Monday through Friday.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact Don Bach, P.E. at 601-960-2090. We want our valued customers to be informed about their water utility. To participate in decisions that may affect the quality of the water, please attend any of our regularly scheduled City Council meetings. They are held on the third Tuesday of each month at 6:00 PM and on the remaining Tuesdays at 10:00 AM within City Hall.

The City of Jackson Surface Water System routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period beginning January 1, 2006 and ending December 31, 2006. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. In this table you will

find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present. The test result table does not list non-detected contaminants.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.

*Millirems per year (mrem/yr)* - measure of radiation absorbed by the body.

*Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

*Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Contaminant Level* - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

*Maximum Contaminant Level Goal* - The "Goal"(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>								
Total Coliform Bacteria	N			0.0%		0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal coliform and E. coli.	N			0		0	0	Human and animal fecal waste
Total Organic Carbon (TOC)	Y		3.56	Removal percentage not within limits	ppm	n/a	TT - 35% to 50% removal based upon untreated water TOC concentration	Naturally present in the environment
Turbidity	Y		1.057	Lowest monthly percentage below 0.3 = 95.7	NTU	n/a	TT - for conventional filtration, 0.3 NTU in 95% of samples collected, 1 NTU maximum	Soil runoff
<b>Radioactive Contaminants</b>								
Beta/photon emitters	N	2003	0.85	ND-1.70	PCi/l	0	50	Decay of natural and man-made deposits
<b>Inorganic Contaminants</b>								
Arsenic	N		0.280	ND-0.560	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N		0.026	0.023-0.028	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	N	2001	0.039	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Cyanide	N		20.6	ND-55.7	ppb	200	200	Discharge from steel / metal factories; discharge from plastic and fertilizer factories.
Lead	N	2001	0.004	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel	*N/A	2003	1.5	1.0-2.0	ppb	*N/A	*N/A	Erosion of natural deposits; leaching
Nitrate (as Nitrogen)	N		0.08	ND-0.16	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Nitrite (as Nitrogen)	N		0.01	ND-0.02	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Synthetic Organic Contaminants including Pesticides and Herbicides</b>								
Hexachlorocyclo-pentadiene	N	1999	0.45	No Range	ppb	50	50	Discharge from chemical factories
<b>Volatile Organic Contaminants</b>								
HAA5 (sum of 5 Haloacetic Acids)	N		58.00	44-74	ppb	N/A	60	By-product of drinking water chlorination
TTHM [Total trihalomethanes]	N		45.00	32-57	ppb	0	80	By-product of drinking water chlorination

\*N/A indicates that chemical is monitored for but not regulated.

We constantly monitor the water supply for various constituents. We have detected cryptosporidium in the source water. We detected this constituent in 1 out of 24 samples tested during 1998. We believe that our disinfection and filtration treatment techniques reduce the chance that this constituent is present within the finished water. We believe it is important for you to know that cryptosporidium may cause serious illness in immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders. These people should seek advice from their health care providers.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

The table shows that our system uncovered some problems this year:

1. The TOC removal violation was during several months throughout the year. Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by products. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. We believe this violation was due to an errors in sampling and analysis. We are working to correct the sampling and analysis errors.

2. The high turbidity violation occurred on August 27. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. We believe this violation was due to an errors in sampling and analysis. We are working to correct the sampling and analysis errors.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can

be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Please call our office if you have questions.

We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

#### Water System User Charge Notification

Your water use charge is \$2.20/100 cubic feet if you are within the City Limits, \$4.40/100 cubic feet if you are outside the City Limits but within 1 mile of the City Limits and \$1.48/100 cubic feet if you are more than 1 mile outside of the City Limits. 57% of this charge is used for operations and maintenance of the water system. 43% of this charge is used for debt retirement.

#### Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. There are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures and install water -saving devices in faucets, toilets
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water from a bucket to wash your car and save the hose for rinsing.

Information on other ways you can help conserve water can be found at [www.epa.gov/safewater/publicoutreach](http://www.epa.gov/safewater/publicoutreach).



**2006 Annual Drinking Water Quality Report**  
City of Jackson Maddox Road Well System  
Public Water Supply Identification Number MS0250012  
May 27, 2007

We're pleased to present to you the 2006 Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our six wells draw from the Sparta Aquifer.

The Mississippi Department of Environmental Quality has completed their source water assessment report which is available for review at the Water / Sewer Utilities Division Office, 200 S. President Street, Room 405, between the hours of 8:00 AM and 5:00 PM Monday through Friday.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact Don Bach, P.E. at 601-960-2090. We want our valued customers to be informed about their water utility. To participate in decisions that may affect the quality of the water, please attend any of our regularly scheduled City Council meetings. They are held on the third Tuesday of each month at 6:00 PM and on the remaining Tuesdays at 10:00 AM within City Hall.

The City of Jackson Maddox Road Well System routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period beginning January 1, 2006 and ending December 31, 2006. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic

chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present.. The test result table does not list non-detected contaminants.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Contaminant Level* - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

*Maximum Contaminant Level Goal* - The "Goal"(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>								
Total Coliform Bacteria	N			0		0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
<b>Radioactive Contaminants</b>								
Alpha emitters	N	2001	1.7	No Range	Pci/l	0	15	Erosion of natural deposits
<b>Inorganic Contaminants</b>								
Barium	N		0.003	0.002-0.006	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	N	2001	0.106	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	N	2001	1	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel	*N/A	2003	0.2	ND-1.0	ppb	*N/A	*N/A	Erosion of natural deposits; Leaching
<b>Volatile Organic Contaminants</b>								
HAA5 (sum of 5 Haloacetic Acids)	Y		54.00	44-60	ppb	N/A	60	By-product of drinking water chlorination
HAA5 running annual average violation levels: 1 <sup>st</sup> Quarter: 71 ppb, 2 <sup>nd</sup> Quarter: 72 ppb, 3 <sup>rd</sup> Quarter: 63 ppb.								
TTHM [Total trihalomethanes]	N		79.00	60-97	ppb	0	80	By-product of drinking water chlorination

\*N/A indicates that chemical is monitored for but not regulated

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes,

inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small

amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

The table shows that our system uncovered some problems this year. Our watersystem recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation. Testing results we received on May 15, 2007 show that our system exceeds the standard, or maximum contaminant level (MCL), for HAA. The standard for HAA is 60 ppb. HAA violations levels were 71, 72 and 63 ppb during the first, second and third quarters of 2006 respectively. You do not need to use an alternative (e.g., bottled) water supply. However, if you have specific health concerns, consult your doctor. This is not an immediate risk. If it had been, you would have been notified immediately. However, some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. We believe this problem was due to our use of free chlorine to treat the water. We are working to reduce our use of free chlorine by supplying the well system area with surface water from our expanded and renovated surface water treatment plants. Lower concentrations of free chlorine are used to treat our surface water than what is required to treat our well water. Correction of this problem involves construction of a new booster pump station, which is expected to be completed within three years.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Please call our office if you have questions.

We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

#### Water System User Charge Notification

Your water use charge is \$2.20/100 cubic feet if you are within the City Limits, \$4.40/100 cubic feet if you are outside the City Limits but within 1 mile of the City Limits and \$1.48/100 cubic feet if you are more than 1 mile outside of the City Limits. 57% of this charge is used for operations and maintenance of the water system. 43% of this charge is used for debt retirement.

#### Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. There are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures and install water -saving devices in faucets, toilets
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water from a bucket to wash your car and save the hose for rinsing.

Information on other ways you can help conserve water can be found at [www.epa.gov/safewater/publicoutreach](http://www.epa.gov/safewater/publicoutreach).